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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
LANDRUM, EDWARD F	

ART UNIT	PAPER NUMBER
3724	

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/823,039	SHUHUA, SANG	
	Examiner	Art Unit	
	Edward F. Landrum	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-21 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 13 April 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 9/20/2004.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: The spacing of the lines of the specification is such as to make reading difficult. New application papers with lines 1½ or double spaced on good quality paper are required. Appropriate correction is required.

Claim Objections

2. The claims are objected to because the lines are crowded too closely together, making reading difficult. Substitute claims with lines one and one-half or double spaced on good quality paper are required. See 37 CFR 1.52(b).

Claim 20 is objected to because of the following informalities: It is not understood whether the claim is intended to be a dependent or independent claim. The Examiner recommends rewriting the preamble to reflect the preamble of the parent claim and then provide the limitation of the saw. Appropriate correction is required.

Claim 21 objected to because of the following informalities: Line 3 of the uses the phrase "a aperture" which should be --an aperture--. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-6, 8-11, and 14-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kramer et al (U.S Patent No. 6,725,548), hereinafter Kramer, in view of Huggins et al (U.S Patent No. 6,533,291), hereinafter Huggins.

Applicant should note that the definition used for the term "aperture" is as follows: An opening, such as a hole, gap, or slit. Source: *The American Heritage® Stedman's Medical Dictionary Copyright © 2002, 2001, 1995 by Houghton Mifflin Company. Published by Houghton Mifflin Company.*

Regarding claims 1 and 21, Kramer teaches a blade clamping device comprising (see Figure 1): a rotatable sleeve (59) with a hole for a blade; a rotatable member (56) mounted coaxially with the rotatable sleeve (59); a blade carrier (60 and 58) with a blade receiving slot (62); an output shaft (44) coupled to the distal end of the blade carrier (60 and 58); a torsion spring (54) for biasing the clamping device to an engaged position (Col. 4, lines 36-39); a guide groove (64 and 66) communicating with the blade receiving slot (62); a locking member (50) mounted in the guide groove (64 and 66); a spiral surface (76) disposed at the proximal end of the rotatable member (56) wherein the locking member (50) is moved into the engaged position by the spiral surface (Col. 3, lines 55-58).

Regarding claim 2, Kramer teaches (Col. 58-65; Col. 4, lines 32-39) the locking member (50) positively engaging the blade when the cylindrical rotatable sleeve (59) is biased bake from a non-clamping configuration to a clamping configuration.

Regarding 3, Kramer teaches (see Figure 1) the rotatable sleeve (59) being manipulable rotationally from the clamping configuration to the non-clamping

configuration whereat the aperture is aligned with the blade receiving slot (62) for releasing the blade.

Regarding claim 4, Kramer teaches (see Figures 1, and 4-7) the blade carrier (60 and 58) rotatably contacts a front end surface of the rotatable member (56) and a rear rod of the blade carrier (60 and 58) passes through a central aperture of the rotatable member (56).

Regarding claim 5, Kramer teaches (Col. 4, lines 32-36) the torsion spring (54) being connected to the rotatable member (56) and to the connected to the output shaft (44) by way of the carrier member (60).

Regarding claim 6, Kramer teaches (Col. 4, lines 5-8; Col. 5, lines 21-26) two longitudinal grooves (86) on the outer surface of rotatable member (56) fitting into splines (87) on the rotatable sleeve (59) for the purpose of connecting the members to ensure when the rotatable sleeve (59) is rotated the rotatable member (56) rotates as well.

Regarding claims 7 and 12, Kramer teaches (see Figures 5 and 10) two protruding stop surfaces located on either side of a recess (57) located within the rotatable member (56).

Regarding claim 8, Kramer teaches (see Figure 1; Col. 5, lines 21-26) the rotatable sleeve (59) and the rotatable member (56) being mounted coaxially in a manner as to prevent relative rotation.

Regarding claim 9, Kramer teaches (See Figure 10) the rotatable member (56) having a main body (78) integrally formed at a proximal end with a cylindrical sleeve (area behind groove 78).

Regarding claim 10, Kramer teaches (see Figures 1 2, 4, and 5) the blade carrier (60 and 58) having a proximal end (located to the left of pin 50 in Figure 5) partly within the rotatable sleeve (59) such that the distally extending rod passes through and out of the distal end of the rotatable member (56) and is slidably seated on the proximal end of the cylindrical sleeve.

Regarding claim 11, Kramer teaches (see Figure 10) wherein the surface of the proximal end of the cylindrical main body (78) spirals axially along the interior of the cylindrical sleeve to define the spiral surface terminating at the proximal end of the cylindrical sleeve.

Regarding claim 14, Kramer teaches (see Figure 1) a restoring member (63) accommodated with the output shaft (44) and capable of cooperating with the distal end of the blade (42), wherein the restoring member (63) in the clamping configuration is biased towards ejecting the blade and in the non-clamping configuration the restoring member (63) is at rest (Col. 3, lines 23-25).

Regarding claim 15, Kramer teaches (see Figure 1) the restoring member cooperating with a force-transmitting element found at the end of the output shaft (44).

Regarding claim 16, Kramer teaches (see Figure 6 and 7) the locking member (50) movable between an engaging position and a non-engaging position, wherein in

the engaging position the locking member (50) positively engages the spiral surface (76).

Regarding claim 20, Kramer teaches (see Figure 16) a saw (99) comprising the clamping device.

Kramer teaches all of the elements of the current invention as stated above except the locking member being pivotally mounted in a guide groove in the blade carrier, and being substantially teardrop-shaped.

Huggins teaches (see Figures 2 and 3) a locking member (78) in a quick-release clamping mechanism that is substantially teardrop-shaped shaped and positionable between a first position (see Figure 3) and a second position (see Figure 2) by the insertion of the tool to be clamped (Col. 5, lines 6-27).

It would have been obvious to have modified the device of Kramer to incorporate the teachings of Huggins to provide a pivotal locking member within the rotatable sleeve so when the clamping device is taken apart to replace a part, or to be cleaned, there is less of a possibility of losing the locking member or misplacing the locking member.

Regarding claim 6, Kramer teaches the placement of the grooves and ribs opposite the design in the instant application, but since the Applicant has not described why the design choice provides an improvement over previous designs and it has been held that shifting parts to different locations does not constitute an invention since the operation of the device would not be modified, *In re Japiske, 86 USPQ 70*, it would have been obvious to switch the grooves to the rotatable sleeve and the ribs to the rotatable

member if the design provided any advantages including decreased manufacturing time or a better connection between the two members.

5. Claims 7, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over the modified device of Kramer in view of Phillips et al (U.S Patent No. 5,575,071), hereinafter Phillips.

Kramer teaches all of the elements of the current invention as stated above except for the use of a limiting pin in concert with two stopper surfaces.

Phillips teaches (Col. 5, 8-18-) teach the use of a pin (36) and two stop surfaces (56 and 58) to limit the rotation of a rotatable member (38) attached to a spring (64) for the purpose of avoiding a user from damaging the spring (64) by over-rotation.

It would have been obvious to have modified Kramer to incorporate the teaching of Phillips to use the two stop surfaces as abutments for a pin located on the blade carrying member for the purpose of avoiding over rotation of the rotatable sleeve which could potentially damage the spring.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Benjamin et al (U.S Patent No. 4,021,132) teaches a tool holder with an ejector mechanism. Salpaka (U.S Patent No. 5,573,255), Holland et al (U.S Patent No. 6,053,675), Seyerle (U.S Patent No. 5,722,309), Pascaloff et al (U.S Patent No. 6,638,290), Marinkovich et al (U.S Patent No. 6,209,208), McCurry et al (U.S Patent No. 5,987,758), and Becker (U.S Patent No. 2,948,559) teach tool clamping mechanisms.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edward F. Landrum whose telephone number is 571-272-5567. The examiner can normally be reached on Monday-Friday 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EFL
3/16/2006

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